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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,792	09/21/2004	Toshiki Taguchi	Q83120	5980

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EXAMINER

SHAH, MANISH S

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 05/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/508,792

Applicant(s)

TAGUCHI, TOSHIKI

Examiner

Manish S. Shah

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/21/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-14 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 5-20 of copending Application No. 10/504084 (# US 2006/0077240 A1). Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the present application are covered said copending application claims and would be obvious thereby. The dye formulas of the present claimed invention are the same as the copending application claimed dye formulas.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima et al. (# JP 09-170181).

Kojima et al. discloses an inkjet recording ink, which may includes multiple aqueous medium including an aqueous medium having dissolved or dispersed therein at least two coloring materials sharing one spectral absorption region selected from region of 500 to 600 nm in magenta and a region of 580 to 680 nm in cyanic color (see Abstract). They also disclose that the main absorption region shared by at least two coloring material (C.I Acid Red 52 and C.I Acid Red 35) in the aqueous medium is the region of 500 to 580 nm (550 nm) ([0034]). They also disclose that the ink having a maximum dye concentration is from 1/20 to 1/2 ([0030]-[0036]).

2. Claims 1-2, 6 & 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiraoka et al. (# JP 2001-106950).

Hiraoka et al. discloses an inkjet recording ink set, which may includes plural inks for inkjet, each one of the plural inks having a maximum absorption wavelength of one of from 500 to 580 nm and from 580 to 680 nm in an aqueous medium and different absorbance (see examples). They also disclose that the ink having a maximum dye concentration is from 1/20 to 1/2 (see Examples; [0056], [0063]-[0069]). They also disclose that ink-receiving layer includes the inorganic white pigment particles and at least one aqueous binder selected from polyvinyl alcohol, starch and gelatin ([0059]-[0061]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being obvious over Yamanouchi et al. (# US 2002/0107301).

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

Art Unit: 2853

only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

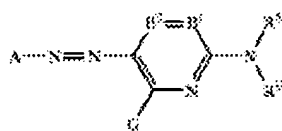
Yamanouchi et al. discloses:

- An ink for ink jet recording, comprising an aqueous medium and a magenta dye dissolved or dispersed in the aqueous medium, the magenta dye being selected from azo dyes, wherein the magenta dye has an oxidation potential of more positive than 0.7 V (vs SCE) ([0241]). They also disclose that the ink having a maximum dye concentration is from 1/20 to 1/2 (see Examples).

- The azo dye has a chromophore represented by the following formula:
(heterocyclic ring A) -N=N- (heterocyclic ring B) wherein, the heterocyclic ring A and the heterocyclic ring B may be a same structure (see Abstract; [0035]).

Art Unit: 2853

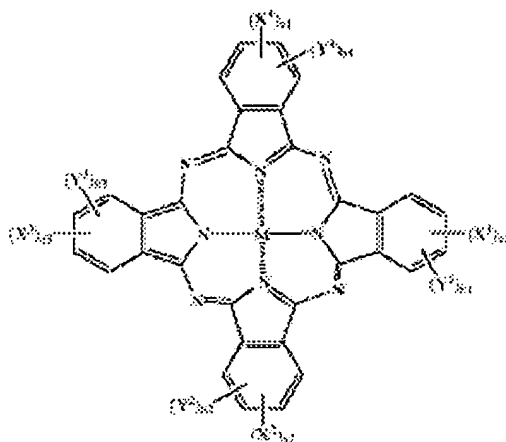
- The azo dye contains an azo group having an aromatic nitrogen-containing 6-membered heterocyclic ring that is directly connected to at least one end of the azo group as a coupling component ([0034]-[0036]).
- The azo dye is a dye represented by the following formula (1) (see Abstract)



wherein A represents a 5-membered heterocyclic ring group; B1 and B2 each represents =CR1- or -CR2= or one of B1 and B2 represents a nitrogen atom while other represents =CR1- or -CR2=; R5 and R6 each independently represents a hydrogen atom or a substituent which is an aliphatic group, an aromatic group, a heterocyclic ring, an acyl group, an alkoxycarbonyl group, an aryloxycarbonyl group, a carbamoyl group, an alkylsulfonyl group, an arylsulfonyl group or a sulfamoyl group, a hydrogen atom of the substituent may be substituted; G, R1 and R2 each independently represents a hydrogen.

- The phthalocyanine dye is represented by the formula as shown below ([0176]-[0179]).

Art Unit: 2853



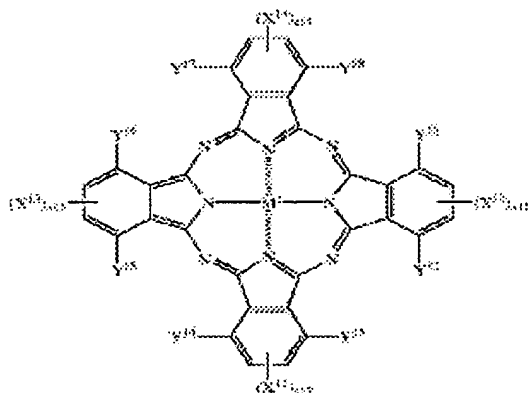
[0177] In general formula (C-1), X^1 , X^2 , X^3 and X^4 each independently represents $-\text{SO}-Z^1$, $-\text{SO}_2-Z^1$ and $-\text{SO}_2\text{NR}^{21}\text{R}^{22}$.

[0178] Z^1 represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group. In particular, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aryl group and substituted or unsubstituted heterocyclic group are preferable, with the substituted alkyl group, substituted aryl group and substituted heterocyclic group being most preferable.

[0179] R^{21} and R^{22} each independently represents hydrogen atoms, substituted or unsubstituted alkyl groups, substituted or unsubstituted cycloalkyl groups, substituted or unsubstituted alkenyl groups, substituted or unsubstituted aralkyl groups, substituted or unsubstituted aryl groups, or substituted or unsubstituted heterocyclic groups. In particular, hydrogen atoms, substituted or unsubstituted alkyl groups, substituted or unsubstituted aryl groups, and substituted or unsubstituted heterocyclic groups are preferable, with hydrogen atoms, substituted alkyl groups, substituted aryl groups and substituted heterocyclic groups being most preferable. However, both R^{21} and R^{22} are not hydrogen atoms.

Art Unit: 2853

- The dye represented the formula as below ([0208]-[0214]).



[0208] In general formula (C-II), X^1 - X^4 are the same as X^1 - X^4 in general formula (C-I), and Y^1 - Y^4 are the same as

Y^1 - Y^4 in general formula (C-I). Preferable examples of X^1 - X^4 and Y^1 - Y^4 are the same as those respectively given for X^1 - X^4 and Y^1 - Y^4 . Further, M^1 is the same as M in general formula (C-I), and preferable examples thereof are also the same as those given for M .

[0209] Specifically, in general formula (C-II), X^1 , X^{12} , X^3 and X^{13} each independently represents $—SO—Z^{11}$, $—SO—Z^{12}$ and $SO_2NR^{21}R^{22}$.

[0210] Z^{11} represents a substituted or unsubstituted alkyl group, a substituted or unsubstituted cycloalkyl group, a substituted or unsubstituted alkenyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group.

[0211] R^{21} represents a hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group, or substituted or unsubstituted heterocyclic group.

[0212] R^{22} represents a substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted aralkyl group, substituted or unsubstituted aryl group, or substituted or unsubstituted heterocyclic group.

[0213] Y^1 , Y^2 , Y^3 , Y^4 , Y^{15} , Y^{16} , Y^{17} , Y^{18} and Y^{19} each independently represents hydrogen atoms, halogen atoms, alkyl groups, cycloalkyl groups, alkenyl groups, aralkyl groups, aryl groups, heterocyclic groups, cyano groups, hydroxyl groups, nitro groups, amino groups, alkylamino groups, alkoxy groups, aryloxy groups, amide groups, arylamino groups, ureide groups, sulfamoylamino groups, alkylthio groups, arylthio groups, alkoxy carbonylamino groups, sulfonamide groups, carbamoyl groups, sulfamoyl groups, sulfonyl groups, alkoxy carbonyl groups, heterocyclic oxy groups, azo groups, acyloxy groups, carbamoyloxy groups, silyloxy groups, aryloxy carbonyl groups, aryloxy carbonylamino groups, imide groups, heterocyclic thio groups, phosphoryl groups, acyl groups, carboxyl groups or sulfo groups. Each of these may have additional substituents.

[0214] a^{11} - a^{14} each represents substituent numbers of X^{11} - X^{14} , but all never become 0 at the same time. It should be noted that when a^{11} - a^{14} represent 2, two of X^{11} - X^{14} may respectively be the same or different. M^1 is a hydrogen atom, metal element or its oxide, hydride or halide.

- The ink has no visibly detectable bleeding on an image-receiving material at a visible distance, the image-receiving material comprises an image-receiving layer on a support, and the image-receiving layer contains a white inorganic pigment particle or a gelatin-containing hardened layer as an image-recording layer ([0415]-[0426]).

- They also disclose a method for producing the ink for ink jet recording, which comprises a step of dissolving or dispersing the azo dye in the aqueous medium with an ultrasonic agitation; filtering the aqueous medium having the azo dye dissolved or dispersed in the aqueous medium through a filter having an effective pore diameter of 1 μm or less; and defoaming the filtered aqueous medium (see Examples).

- They also disclose an ink jet recording method using the ink, wherein an ink droplet is ejected onto an image-receiving material in accordance with a recording signal so that an image is recorded on the image-receiving material by using the ink for ink jet recording, the image-receiving material comprising an image-receiving layer on a support, the image-receiving layer ([0415]-[0426]) containing a white inorganic pigment particle ([0427]-[0428]) and at least one aqueous binder selected from a polyvinyl alcohol, a silanol-modified polyvinyl alcohol, a starch, a cationated starch, a gelatin, a carboxyalkyl cellulose, a casein and a polyvinyl pyrrolidone ([0430]-[0431]) and the image-receiving layer further contains a mordant selected from a polyaluminum chloride, a chromium compound and an azo dye-mordanting group-containing polymer ([0432]-[0433]).

Yamanouchi et al. differs from the claim of the present invention is that each one of the plural inks having a maximum absorption wavelength of one of from 500 to 580 nm and from 580 to 680 nm in an aqueous medium and a different absorbance.

However, this limitation is consider to be obvious, because there does not appear to be any reason why the cited reference would not contains an ink composition with applicant's claimed properties since the azo dye of the above reference is the same structure as those claimed by applicants.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Manish S. Shah
Primary Examiner
Art Unit 2853

MSS

5/10/06